

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Original) A rotation control circuit of a motor, comprising:
  - a PWM control circuit of said motor;
  - a rotational speed sensor of said motor;
  - a reference signal generation circuit;
  - a phase comparing circuit; and
  - a divider for dividing the detected rotational speed signal of said motor;wherein the phase difference between the signal from said divider and the signal based on said reference signal is sought with said phase comparing unit, and this phase difference signal is supplied to said PWM control circuit.
2. (Original) A rotation control circuit of a motor according to claim 1, further comprising a rotation command means of said motor; wherein said command means alters the division ratio of said divider in accordance with the contents of the rotational speed alteration request to said motor.
3. (Currently Amended) A driver comprising the rotation control circuit of a motor according to claim 1, ~~or claim 2~~; wherein said driver employs the motor controlled with said control circuit as a drive source of a drive mechanism.
4. (Original) A rotation control circuit of a motor, comprising:
  - a PWM control circuit of said motor;
  - a rotation command signal output means to said motor;
  - a reference signal generation circuit;
  - a phase comparing circuit; and

a divider for dividing the command signal to said motor;  
wherein the phase difference between the signal from said divider and the signal based on said reference signal is sought with said phase comparing unit, and this phase difference signal is supplied to said PWM control circuit.

5. (Original) A vehicle having a vehicle body, a drive wheel, an auxiliary wheel, and a first drive source and in which said first drive source rotates said drive wheel to make said vehicle run, comprising:

a position sensor of said vehicle body;  
drive control means of said vehicle body; and  
posture control means of said vehicle body;

wherein said posture control means has a second drive source for moving the position of said drive wheel in relation to the vehicle body in accordance with the signal from said position sensor and said drive control means, and a third drive source for making said auxiliary wheel float from the road surface.

6. (Original) A vehicle according to claim 5, wherein said position sensor outputs to said posture control means a frequency signal as a detection signal, and said posture control means determines the travel distance of the position of said drive wheel in relation to the vehicle body based on the phase difference between said reference signal and said frequency signal.

7. (Original) A vehicle according to claim 6, wherein said posture control means has a reference signal generation circuit, a phase comparing circuit, a divider for dividing said pulse wave signal, and a PWM control circuit; wherein the phase difference between the signal from said divider and the signal based on said reference signal is compared with said phase comparing unit, this phase difference

signal is supplied to said PWM control circuit, and the output of said PWM control circuit is supplied to said second drive source.

8. (Currently Amended) A vehicle according to ~~any one of claims 5 to 7~~ claim 5, wherein said first and second drive sources are electric motors.

9. (Currently Amended) A vehicle according to ~~any one of claims 5 to 8~~ claim 5, wherein said position sensor is a distance sensor of said vehicle body and road surface, or an inclination sensor for detecting the inclination of said vehicle body.

10. (Original) A posture control system of a driver, comprising:  
a main body;  
a drive unit;  
a drive control unit for operating said drive unit and moving said main body;  
a position sensor of said main body;  
moving means for relatively moving the summation point of said drive unit in relation to the center of gravity of said main body; and  
determination means for determining said relative travel distance in accordance with the output value of said position sensor;  
wherein the summation point of said drive unit may be moved in relation to the center of gravity of said main body.

11. (Original) A posture control system of a driver according to claim 10, wherein the summation point of said drive unit may be moved in the X-Y direction in relation to the center of gravity of said main body.

12. (New) A driver comprising the rotation control circuit of a motor according to claim 2, wherein said driver employs the motor controlled with said control circuit as a drive source of a drive mechanism.

13. (New) A vehicle according to claim 6, wherein said first and second drive sources are electric motors.
14. (New) A vehicle according to claim 7, wherein said first and second drive sources are electric motors.
15. (New) A vehicle according to claim 6, wherein said position sensor is a distance sensor of said vehicle body and road surface, or an inclination sensor for detecting the inclination of said vehicle body.
16. (New) A vehicle according to claim 7, wherein said position sensor is a distance sensor of said vehicle body and road surface, or an inclination sensor for detecting the inclination of said vehicle body.
17. (New) A vehicle according to claim 8, wherein said position sensor is a distance sensor of said vehicle body and road surface, or an inclination sensor for detecting the inclination of said vehicle body.
18. (New) A vehicle according to claim 13, wherein said position sensor is a distance sensor of said vehicle body and road surface, or an inclination sensor for detecting the inclination of said vehicle body.
19. (New) A vehicle according to claim 14, wherein said position sensor is a distance sensor of said vehicle body and road surface, or an inclination sensor for detecting the inclination of said vehicle body.